

SCIENTIFIC NOTE

**The First Record of *Sophonia rufofascia*
(Homoptera: Cicadellidae) in Tahiti****Dan Polhemus**Department of Entomology, MRC 105,
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Although 16 species of *Sophonia* are present on various islands in the western Pacific (Heu and Kumashiro 1990), members of this genus are not naturally present in the island groups of the eastern Pacific, such as the Societies, the Marquesas, and Hawaii. Accidental introductions are rapidly changing this situation, however, with *Sophonia rufofascia* (Kuoh and Kuoh), a native of southern Asia, having become accidentally introduced to various islands in the eastern Pacific over the last decade. This species, known commonly as the "twospotted leafhopper," was first collected in Hawaii in 1987 (Heu and Kumashiro 1990), and since that time has been reported as feeding on over 300 species of both native and imported plants, including some, such of guava (*Psidium guajava* L.), of agricultural importance (Culliney 1998). One of the most alarming aspects of the *S. rufofascia* infestation in Hawaii has been its impact on the widespread native uluhe fern (*Dicranopteris linearis* [Burman] Underwood); in many instances large mats of this clonal fern withered and died following attacks by *Sophonia*, causing concerns over soil erosion on the steep slopes typical of many Hawaiian valleys (Markin 1993).

Up to the present time, the Society Islands, including Tahiti, have been free from infestation by *S. rufofascia*. In late 1999, however, while collecting terrestrial Heteroptera on Mt. Marau, above Papeete, the author captured several specimens of *Sophonia rufofascia* while beating *Weinmannia parviflora* Forst., a common forest tree of the Tahitian mountains. The presence of both males and females on a native host at high elevation indicates that the species has become established in Tahiti, presenting a potential threat to various agricultural crops, as well as to several endemic *Dicranopteris* fern species found on the island. If the Hawaiian experience is any guide, we may expect to see *S. rufofascia* spread rapidly through the Society Islands, exploiting a wide range of both native and introduced host plants. Agricultural quarantine officers in French Polynesia should be made aware of this species in order to prevent its spread to the Marquesas and other more remote island groups.

Material examined: 1 ♂, 1 ♀, SOCIETY ISLANDS, Tahiti, Tahiti Nui, Mt. Marau, 1280 m [4200 ft], 17°36'26"S, 149°32'15"W, 6 November 1999, 09:00–16:00 h, CL 6026, D. A. Polhemus; deposited in the National Museum of Natural History, Smithsonian Institution, Washington, D. C.

Literature Cited

- Culliney, T. W. 1998. Site of oviposition and description of eggs of *Sophonia rufofascia* (Homoptera: Cicadellidae: Nirvaninae), a polyphagous pest in Hawai'i. Proc. Hawaii. Entomol. Soc. 33: 67–73.
Heu, R. and B. Kumashiro. 1990. Notes and exhibitions. Proc. Hawaii. Entomol. Soc. 29: 16–17.
Markin, G. P. 1993. The two spotted leafhopper [sic]—the newest forest pest in the Pacific? Inst. Pac. Islands Forestry (USDA For. Serv.). Prog. Rep. (Oct. 1993): 5–6.